

10 April 2015

## CVO advice to veterinarians: Deaths in Bellinger River Snapping Turtles

### Background

In mid-February increasing numbers of dead and sick turtles were reported in a section of the Bellinger River on the north coast. The affected turtles – The Bellinger River Snapping turtles (*Myuchelys georges*) are a unique species only found in a small section of the Bellinger and Kalang rivers. A 2007 survey estimated the total population of this species as between 1500- 4500. Smaller numbers of other species including *Emydura macquarii* are also present in the rivers but appear to be unaffected. Multiple state, national and international government and non-government agencies have been involved in the response, investigation and management of this event. At this stage the cause of deaths has not been determined. For further details and updates see: <http://www.dpi.nsw.gov.au/biosecurity/animal/wildlife-and-feral-animals>

### Epidemiology

More than 320 affected turtles have been collected from a 20 km section of the Bellinger River between Bellingen and west to Darkwood. This section of the river has been termed the “Hot Zone”. The area west of Darkwood where cases have not been reported to date is referred to as the “Cold Zone” For a map see: [http://www.dpi.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0011/553358/factsheet-bellinger-river-turtle-deaths.pdf](http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0011/553358/factsheet-bellinger-river-turtle-deaths.pdf).

Affected turtles have been either found dead or beached on banks in a moribund state or swimming in a disoriented manner. Turtles present with swollen inflamed eyes and lids as well as severe emaciation.

At necropsy significant and consistent gross findings have involved the eyes (oedema, necrosis and fibrinoid change in the eyelids) with extension into the sinuses, calvarium and brain. Gross findings in liver, kidney, heart and spleen, have been present, with varying degrees of inflammation noted histologically, likely reflecting septicaemia. Testing for the presence of a wide range of infectious and toxic agents has been undertaken with no conclusive aetiological agent identified to date. The changes appear to have occurred over approximately 4-10 days.

Around 60% of the cases to date have been male and all have been adults. This bias may just reflect the population distribution or behaviour rather than a true age or sex effect.

Only a very small number of other turtle species have been identified by surveillance teams so the absence of disease in these species to date may reflect the low population in the hot zone and/or the absence of risk factors in areas of the river where they are more abundant.

### Biosecurity controls

At this stage it has not been possible to rule out an infectious cause. Thus as a biosecurity precaution, dead and sick turtles have been removed from the river to reduce the risk of transmission to other turtles if an infectious agent is the cause of deaths. It is also to reduce the chance that other animals that may move affected animals to other catchments and extend the outbreak.

The river upstream of the affected zone has been closed to the public as a precaution and persons using the river including canoes and kayaks, swimming or fishing have been given hygiene advice to minimise the possibility of disease transmission to other watercourses(see Factsheet -[Keep a ‘clean’ routine](http://www.dpi.nsw.gov.au/biosecurity/animal/wildlife-and-feral-animals) at <http://www.dpi.nsw.gov.au/biosecurity/animal/wildlife-and-feral-animals>)

The general public have been advised to not handle turtles. This is to avoid spread of disease and minimise catching zoonotic diseases from turtles. Veterinarians are advised to use gloves and take appropriate hygiene precautions when examining sick or dead turtles.

### **Veterinarians contacted about sick or dead turtles**

Private veterinarians may be contacted by members of the public, wildlife carers or other agencies for advice or veterinary care for sick or dead turtles. It is important that strict hygiene standards are maintained during any interaction with sick turtles.

#### ***Sick or dead turtles from the Bellinger River***

Ring 131 555 to report and arrange collection and transport to the Bellinger Veterinary Clinic.

#### ***Sick or dead turtles from other regions***

Ring your local wildlife rescue group e.g. WIRES for assistance with individual sick or injured turtles from other regions.

Report turtles with similar clinical signs to those in the Bellinger River or any mass illness or mortality event by contacting:

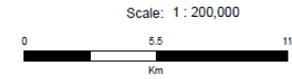
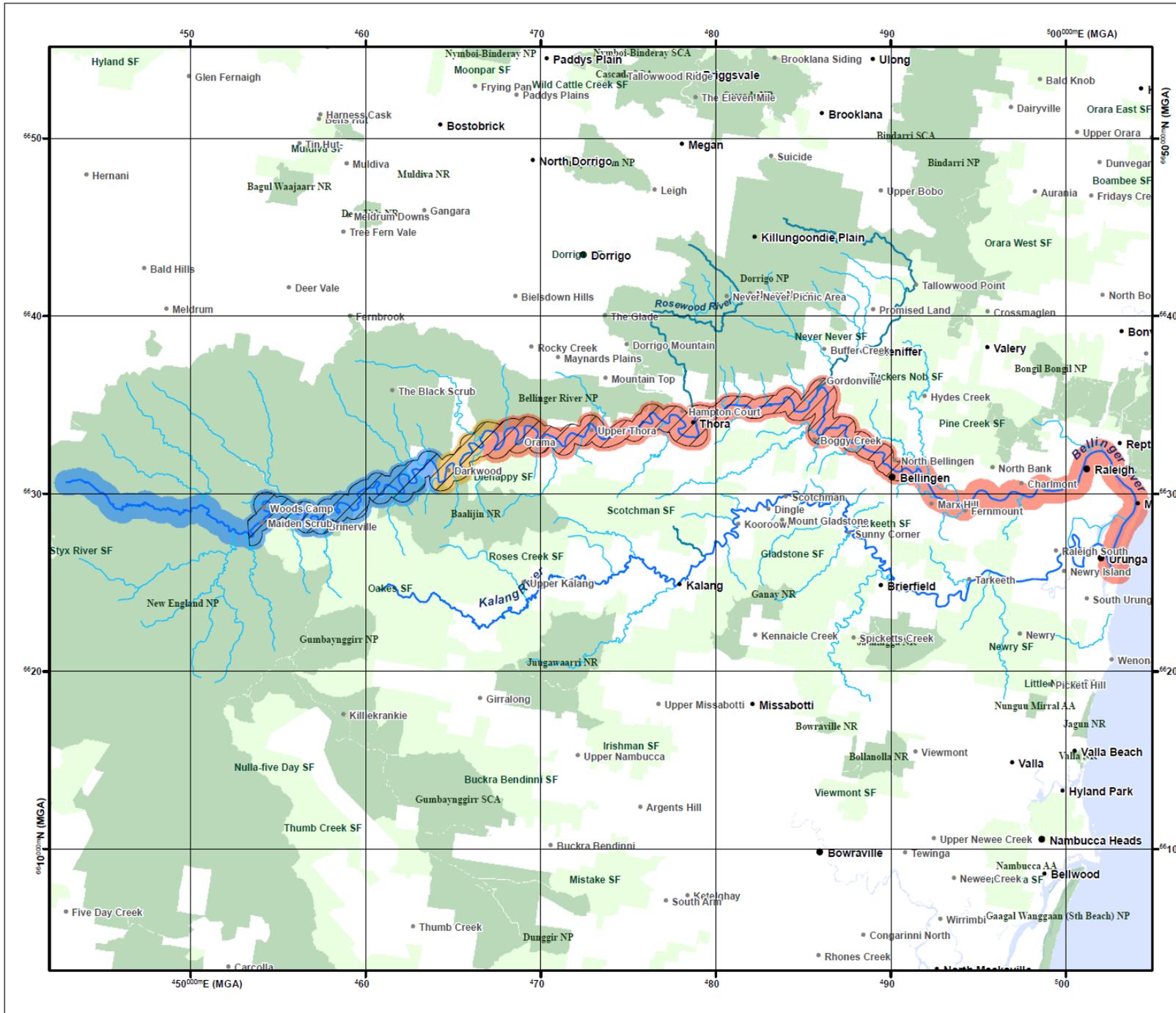
1. The NSW Wildlife Health Australia Coordinator, Greg Curran on 08 8088 9336 or [greg.curran@dpi.nsw.gov.au](mailto:greg.curran@dpi.nsw.gov.au), or
2. The alternate NSW Wildlife Health Australia Coordinator, Sarah Britton on 02 6391 3717 or [sarah.britton@dpi.nsw.gov.au](mailto:sarah.britton@dpi.nsw.gov.au), or
3. The Emergency Animal Disease Hotline on 1800 675 888.

The DPI Veterinarian will assess the report and coordinate a diagnostic investigation if required.

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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (26 March 2015). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of NSW Department Primary Industries or the user's independent adviser.



**LEGEND**

- City
- Town
- Village
- Locality
- ▭ Mychelys Geospatial Distribution
- ▭ NPWS Estate
- ▭ State Forest Estate
- ▭ Ocean
- Warm Zone
- Hot Zone
- Cold Zone
- Bellingen, Kalang, Rivers
- Never Never and Rosewood
- Minor drainage

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**KEY MAP**

